

AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Previously Presented) A method for controlling a photosensitive cell, the photosensitive cell comprising a photodiode connected to a read node via a MOS transfer transistor, the read node being connected to a reference voltage via a MOS reset transistor, the photosensitive cell further comprising at least three cyclical phases, including:

a waiting phase of non-zero duration, at the end of which the photodiode is isolated from the reference voltage;

an integration phase during which the voltage of the photodiode varies from a reset voltage to a useful voltage that depends on the lighting; and

a read phase of reading a voltage representative of the useful voltage,

wherein the isolation of the photodiode from the reference voltage at the end of the waiting phase comprises an isolation of the photodiode from the read node, the method comprising:

setting the MOS transfer transistor to an on state, the MOS reset transistor being in an off state;

turning the MOS transfer transistor to an off state; and

setting the MOS reset transistor to an on state.

2. (Previously Presented) The method of claim 1, wherein the step of setting the transfer transistor to the on state is preceded by a step of turning the reset transistor to an off state while the transfer transistor is in an off state.

3. (Previously Presented) The method of claim 1, wherein turning the transfer transistor to the off state is performed during the read phase preceding the waiting phase, and the transfer transistor is maintained in an off state at the beginning of the waiting phase.

4. (Previously Presented) The method of claim 2, wherein the turning of the transfer transistor to the off state is performed during the waiting phase before turning the reset transistor to the off state.

5. (Previously Presented) The method of claim 1, wherein the reset transistor is turned to the on state as soon as the read phase preceding the waiting phase is over, and is maintained in an on state at the beginning of the waiting phase.

6. (Previously Presented) The method of claim 2, wherein turning the reset transistor to the off state is carried out during the read phase preceding the waiting phase, and the reset transistor is maintained in an off state at the beginning of the waiting phase.

7. (Previously Presented) The method of claim 1, wherein the transfer transistor is temporarily turned to the on state several times to discharge the photodiode at the end of the waiting phase while the reset transistor is maintained in an off state.

8. (Previously Presented) A device for controlling a photosensitive cell comprising:
a photodiode having its a varying voltage according to the lighting, the photodiode being connected to a read node via a MOS transfer transistor, and the read node being connected to a-a reference voltage via a MOS reset transistor;

means for reading a voltage representative of the photodiode voltage;

means for isolating the photodiode from the reference voltage; and

timing means for delaying isolating the photodiode isolation after reading of the voltage representative of the photodiode voltage by the read means; wherein

the means for isolating the photodiode from the reference voltage comprises means for temporarily turning the transfer transistor to an on state while maintaining the reset transistor in an off state.

9. (Original) The device of claim 8, wherein the MOS reset transistor and/or the MOS transfer transistor are shared between several photosensitive cells.

10. (Previously Presented) The device of claim 8, wherein the means for reading a voltage representative of the photodiode voltage is shared between several photosensitive cells.

11. (Previously Presented) The method of claim 1, wherein the steps are performed in the order presented.

12. (Previously Presented) A photosensitive cell comprising:
a photodiode configured to have a varying voltage according to lighting;
a read node connected to the photodiode via a MOS transfer transistor;
a reference voltage source connected to the read node via a MOS reset transistor;
first and second MOS read transistors connected serially, the MOS read transistors being configured to read a voltage representative of the photodiode voltage; and
a control circuit configured to send signals to the MOS transfer transistor, the MOS reset transistor, and the second MOS read transistor; wherein the control circuit is configured to, during a waiting phase after a read phase, send signals to the transistors to, in order: turn the MOS transfer transistor to an on state with the MOS reset transistor being in an off state, turn the MOS transfer transistor to an off state, and turn the MOS reset transistor to an on state, all while the control circuit maintains the second MOS read transistor in an off state.

13. (Previously Presented) The photosensitive cell of claim 12, wherein the MOS read transistors are configured to read the voltage of the photodiode.

14. (Previously Presented) The photosensitive cell of claim 12, wherein the control circuit comprises at least two control circuits.

15. (Previously Presented) The photosensitive cell of claim 12, wherein the control circuit is configured to turn the reset transistor to an off state before turning the MOS transfer transistor to an on state.

16. (Previously Presented) The photosensitive cell of claim 12, wherein the control

circuit is configured to turn the transfer transistor to the off state during the read phase, and the control circuit is configured to maintain the transfer transistor in an off state at the beginning of the waiting phase.

17. (Previously Presented) The photosensitive cell of claim 15, wherein the control circuit is configured to turn the transfer transistor to the off state during the waiting phase before turning the reset transistor to the off state.

18. (Previously Presented) The photosensitive cell of claim 12, wherein the control circuit is configured to turn the reset transistor to the on state as soon as the read phase preceding the waiting phase is over, and maintain the reset transistor in an on state at the beginning of the waiting phase.

19. (Previously Presented) The photosensitive cell of claim 15, wherein the control circuit is configured to turn the reset transistor to the off state during the read phase preceding the waiting phase, and to maintain the reset transistor in the off state at the beginning of the waiting phase.

20. (Previously Presented) The photosensitive cell of claim 12, wherein the control circuit is configured to temporarily turn the transfer transistor to the on state several times to discharge the photodiode at the end of the waiting phase while the reset transistor is maintained in the off state.

21. (Previously Presented) The photosensitive cell of claim 12, wherein the control circuit is configured to cyclically repeat turning the MOS transfer transistor to the on state with the MOS reset transistor being in the off state, turning the MOS transfer transistor to the off state, and turning the MOS reset transistor to the on state, all while the control circuit maintains the second MOS read transistor in the off state.

22. (Currently Amended) A method for controlling a photosensitive cell, the method comprising:

providing at least one timing control to the photosensitive cell; and
thereafter beginning an integration phase;

wherein providing at least one timing control signal to the photosensitive cell comprises, in order, maintaining a reset control signal and a transfer control signal in a low state from an end of a preceding read cycle, setting the reset control signal to a high state to discharge a read node, returning the reset control signal to the low state, setting the transfer control signal to a high state, and returning the transfer control signal to the low state while the reset control signal remains at the low state.

23. (Previously Presented) The method of claim 22, wherein providing at least one timing control signal to the photosensitive cell comprises setting a transfer control signal to a low state, setting a reset control signal to a low state, and thereafter setting the transfer control signal to a high state for a first period of time.

24. (Canceled)

25. (Previously Presented) The method of claim 22, wherein providing at least one timing control signal to the photosensitive cell comprises performing a rising edge and a falling edge of a transfer control signal when a read region is at a high impedance.